

**REMARKS/ARGUMENTS**

Claims 1-9 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al. (6514615) in view of Beihoffer et al. (6222091). For the reasons set forth hereinafter, it is submitted that Claims 1-9 in their present form are not rendered obvious or even suggested by the combined teachings of the cited references.

Claim 1, and all of the dependent Claims 2-9 all recite a water-absorbing agent comprising a water-absorbing resin having a cross-linking structure constructed by polymerization of an unsaturated monomer component wherein the water-absorbing agent is surface-treated and includes the following properties:

(1) heat retention indicator 1 (maximum temperature decrease per minute 5 to 10 minutes after 10 times swelling in a 0.90 wt. % sodium chloride at 50°C) is from 0 to 3.0°C/min;

(2) a centrifuge retention capacity in a 0.90 wt. % aqueous solution of sodium chloride (30 minute value) is 34 g/g or less;

(3) an absorbency in a 0.90 wt. % aqueous solution of sodium chloride against a pressure of 2.0 kPa (60 minute value) is less than 30 g/g; and

(4) a saline flow conductivity (SFC) for a 0.69 wt. % aqueous solution of sodium chloride is less than  $20 \times 10^{-7} \text{cm}^3 \text{sec/g}$ .

As stated on pages 4-7 of the specification, the inventors have found that a drop in the temperature of the absorbent after a diaper or the like absorbent absorbs excreted urine or other body fluids, i.e., the "cool feel" of the wearer, is a factor that seriously affects comfort. In the manufacture and/or construction of such absorbents, heat retention has not been considered and thus none of them have achieved a satisfactory level of heat retention and actual use.

Accordingly, it is important to provide high heat retention and also attain a required level of absorption performance.

The inventors have found that the heat retention of a diaper or the like can be enhanced by improving a particular capability of the water-absorbing resin, which has led to the present invention. This particular capability is measured by a "heat retention indicator I" of the water-absorbing resin which is an absolutely novel parameter for a water-absorbing resin to be used in a water-absorbing agent. The heat retention indicator I is a representation of a temperature change on the surface of the water-absorbing resin over a unit time after a liquid is poured onto the water-absorbing resin. The lower the heat retention indicator I, the smaller the temperature change on the water-absorbing resin surface and the better the heat retention. Accordingly, the inventors have found that a water-absorbing resin with a satisfactory heat retention indicator I can be prepared by controlling the centrifuge retention capacity, absorbency under pressure and saline flow conductivity during manufacture. This novel combination of properties, as set forth in Claim 1 and dependent Claims 2-9 is not disclosed or even suggested by the teachings of the cited references, taken individually or in combination. The cited references fail to teach a water-absorbing agent which exhibits excellent performance without an uncomfortable feeling when used as a diaper or the like, owing to the combination of the four properties set forth in the claims, namely, a heat retention indicator, a centrifuge retention capacity, an absorbency, and a saline flow conductivity.

The Examiner acknowledges that Sun et al. fails to teach the saline flow conductivity and the heat retention indicator called for in all of the claims. Although Sun et al. is silent as to the heat retention indicator of the water-absorbing agent, the Examiner takes the position that, since

Sun et al. discloses an identical water-absorbing agent, the water-absorbing agent of Sun et al. will inherently exhibit the claimed heat retention indicator.

The Examiner then combines the teachings of the secondary reference to Beihoffer et al., which discloses a saline flow conductivity, with the teachings of Sun et al. in an attempt to render obvious the novel combination of elements in Claims 1-9. It is noted, however, that neither Sun et al. nor Beihoffer et al. recognizes the importance of a heat retention indicator in combination with a required level of absorption performance in a water-absorbing agent. There is no basis, therefore, for combining the teachings of Beihoffer et al. with Sun et al. in an attempt to render obvious the novel recitations in Claims 1-9, particularly, the combination of the four properties in Claim 1, namely, heat retention indicator, centrifuge retention capacity, absorbency and saline flow conductivity. The importance of the combination of these elements is not recognized in Sun et al. or Beihoffer et al., taken alone or in combination.

In this Office Action, it is submitted that a *prima facie* case of obviousness is not established. The rejections in the Office Action are under 35 U.S.C. §103, not §102. Rejections under §103 require establishing a *prima facie* case of obviousness. The Examiner should bear the burden of establishing the *prima facie* case, as set forth in MPEP §2142 as follows.

“The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness,”

Further, MPEP §2142 also sets forth the following conclusions for ESTABLISHING A *PRIMA FACIE* CASE OF OBVIOUSNESS.

“The key to supporting any rejection under 35 U.S.C. §103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR International Co. v. Teleflex Inc. 550 U.S. \_\_\_, \_\_\_, 82 USPQ2d 1385, 1396 (2007) noted that the analysis supporting a rejection under 35 U.S.C. §103 should be made explicit. The Federal Circuit has stated that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also KSR, 550 U.S. at \_\_\_, 82 USPQ2d at 1396 (quoting Federal Circuit statement with approval).”

MPEP §2143 also states the following:

“The key to supporting any rejection under 35 U.S.C. §103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in KSR noted that the analysis supporting a rejection under 35 U.S.C. §103 should be made explicit.”

Furthermore, the following seven examples are cited as EXEMPLARY RATIONALES for supporting obviousness:

Exemplary rationales that may support a conclusion of obviousness include:

- (A) Combining prior art elements according to known methods to yield predictable results;
- (B) Simple substitution of one known element for another to obtain predictable results;
- (C) Use of known technique to improve similar devices (methods, or products) in the same way;
- (D) Applying a known technique to a known device (method, or product) ready

for improvement to yield predictable results;

(E) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;

(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

The significant point of these rationales is whether the claimed invention is predictable or not. The Examiner assumes that "to provide for improved fluid handling" is a reason for the predictability. However, if this could be a ground for predictability, any improvements in SAP would be predictable. This is not true.

Neither of the cited documents discloses or even suggests a concrete effect that "the invention can be used as a diaper without an uncomfortable feeling", which is the effect of the subject invention, namely, the heat retention and absorbency. If the effect is predictable under this situation, the Examiner should take responsibility for stating its reason.

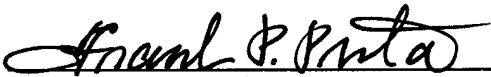
That is, the Examiner merely says, "it would be obvious for one of ordinary skill in the art", and does not mention "articulated reasoning with rational underpinning to support the legal conclusion of obviousness". For this reason, this Office Action does not establish the required *prima facie* case of obviousness. The subject invention, therefore, includes unpredictable results effected by the combination of properties or elements in Claims 1-9.

Accordingly, it is submitted that the Examiner has failed to establish any of the (A) through (G) "EXEMPLARY RATIONALES" in MPEP §2143 or other RATIONALES to support the conclusion of obviousness. For this reason, it is apparent that the *prima facie* case of obviousness is not established with respect to the novel recitations in the claims.

In view of the above remarks, it is submitted that all of the claims in the present application are allowable to Applicants, and formal allowance thereof is earnestly solicited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By:   
Frank P. Presta  
Reg. No. 19,828

FPP:cgp  
901 North Glebe Road, 11th Floor  
Arlington, VA 22203-1808  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100